

## 3-D Printer Workshop Preparation

Welcome and thank you for being a bold maker! We've put a lot of thought and effort into designing a workshop in which people with average mechanical skills can build and learn to use a RepRap 3-D printer in just three days. **Preparation is essential and the following must be completed prior to the workshop:**

- 1) **Bring a laptop you have administrative privileges for** and that has all the software installed as outlined at [http://www.appropedia.org/Delta\\_Build\\_Overview:MOST#Before\\_You\\_Begin](http://www.appropedia.org/Delta_Build_Overview:MOST#Before_You_Begin). Laptops provided by school districts are often locked down, making it impossible for anyone to make changes necessary to complete commissioning, bringing progress to a full and frustrating stop.
- 2) Review the MOST RepRap Primer ([http://www.appropedia.org/MOST\\_RepRap\\_Primer](http://www.appropedia.org/MOST_RepRap_Primer)) to learn some of the technical jargon used by the 3-D printing community.
- 3) Review the MOST Delta build overview ([http://www.appropedia.org/Delta\\_Build\\_Overview](http://www.appropedia.org/Delta_Build_Overview)) and feel free to go through the assembly process. This is the very process you will be following during the workshop (with help). Workshop printer kits are partially assembled, so you will be following only those steps highlighted. This process is wiki based – it changes regularly with design modifications and as better assembly methods are developed, so check back on occasion.
- 4) Join the MOST Delta User group (<https://groups.google.com/a/mtu.edu/d/forum/most-delta-users-1>). This will be your access to other users and your primary source of support. RepRaps are open-source designs developed by a global community and free for all to use. Contributing to that community is the sincerest way of honoring it and ensuring its continued good health.

During the three day workshop, teams of two will assemble a pair of MOST Delta 3-D printers and learn how to use them. The first day will be the most challenging as you are introduced to printer assembly while building the first printer. The second printer will be assembled on day two, at which point you'll be printer assembly pros. Commissioning will commence as soon as everyone's printers are completed. You're encouraged to help others if you finish early. On day three, you will be introduced to available resources to help you get the most out of your new 3-D printer. A team of experienced facilitators will be present to assist you throughout the entire process.

Toolkits having the bare essentials required to assemble the kit and maintain the printer will be given to you. You're encouraged to bring your own tools. Of value will be needle nose pliers, diagonal cutters, small vice grips, utility knives, mechanic's gloves, a file and a magnifying glass. Make sure any tools you bring are clearly identified as belonging to you.

Snacks and beverages will be provided and we'll break each day for lunch, which is also provided. Guest speakers will make short presentations throughout, sharing their experiences with the printers and introducing you to the world of open-source 3-D designing and printing.

You're encouraged to consume as much information as you can find about RepRaps, delta printers, Repetier Firmware, Repetier Host, Cura, Arduino and OpenSCAD before you come to the workshop.

We look forward to meeting you at the workshop!